

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 09/802,925

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): Process for obtaining a heating fluid to be used as indirect heat source for carrying out endothermic reactions, comprising the steps of:

-feeding a flow comprising hydrocarbons and a gas flow comprising oxygen to a combustor, wherein such flows are suitably compressed;

- burning said hydrocarbons in presence of said oxygen in the combustor, thus obtaining a high temperature fluid comprising carbon dioxide and oxygen;

wherein the process characterised in that it further comprises the step of feeding a flow comprising water, ~~preferably in the form of vapour~~, to said high temperature fluid and/or to said combustor.

2. (currently amended): Process according to claim 1, further comprising characterised by the fact of feeding said water in an amount comprised between 0.10,1 and 0.70,7 times the flow comprising oxygen.

3. (currently amended): Process according to claim 1, wherein characterised in that said flow comprising water is fed to said high temperature fluid and/or to said combustor as vapour obtained through evaporation of a water flow at a predetermined pressure.

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4. (currently amended): Process according to claim 1, ~~wherein characterised in that said flow comprising water is fed in said combustor in the form of vapour together with said flow comprising oxygen.~~

5. (currently amended): Process according to claim 4, ~~further comprising characterised in that it comprises the steps of:~~

- feeding at a predetermined pressure said flow comprising water into the flow comprising oxygen upstream of said combustor;
- heating the so-obtained flow in such a way to let the water at least partially evaporate and obtain a flow comprising oxygen and water vapour.

6. (currently amended): Process according to claim 4, ~~further comprising characterised in that it comprises the steps of:~~

- heating said flow comprising water;
- feeding at a predetermined pressure the suitably heated flow comprising water into the flow comprising oxygen upstream of the combustor, in such a way to let the water at least partially evaporate and obtain a flow comprising oxygen and water vapour.

7. (currently amended): Process for carrying out hydrocarbon reforming reactions in an exchanger type reformer, comprising the steps of:

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- feeding a gas flow comprising hydrocarbons and water vapour in a reaction space (25) comprising catalyst in said exchanger type reformer;

- feeding a heating fluid in a space (26) adjacent to said reaction space (25) in said exchanger type reformer;

- reacting in a catalytic way the gas flow comprising hydrocarbons by indirect heat exchange with the heating fluid, thus obtaining a gas flow comprising hydrogen;

wherein characterised in that said heating fluid comprises water, ~~preferably in the form of vapour.~~

8. (currently amended): Process wherein characterised in that said heating fluid is obtained through a process according to claim 1.

9. (currently amended): Process according to claim 8, further comprising characterised in that it further comprises the step of cooling down the heating fluid leaving the exchanger type reformer by indirect heat exchange with a flow comprising oxygen and/or water fed to said combustor.

Claim 10 (cancelled).